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Vol. X SEPTEMBER, 1919. No. 9

THE OHIO PUBLIC HEALTH JOURNAL

ISSUED MONTHLY BY

THE STATE DEPARTMENT OF HEALTH

COLUMBUS, OHIO

Entered as second-class matter at the Postoffice at Columbus, Ohio, under the Act of August 24, 1912. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 10, 1918.

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Deaths From Various Causes in Ohio in 1918 — Will Influenza Recur This Winter? —The Hughes Act and What It Will Do for Ohio — Hospitals and Dispensaries in Public Health Administration — Amended Soda Fountain Regulations.

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The Ohio Public Health Journal

Vol. X SEPTEMBER, 1919 No. 9

EDITORIALS

Counties Show Fine Spirit in Local Health Reorganization

Early progress toward the local health reorganization which is necessary under the Hughes Act is most encouraging to Ohioans interested in the improvement of their State's public health. Eagerness to carry out in full the spirit of the new law is evident on many sides. Most districts are showing a disposition to gain for their people the fullest measure of benefits to be derived from the Hughes Act.

It is only where such willing co-operation is displayed by the public that the new health administrative system will accomplish its full possibilities. The Hughes Act purposely left the districts free to formulate their own health organizations, after meeting the requirements for a whole-time health commissioner and the minimum additional staff outlined in the law.

The State has outlined the program; it is now for the counties to decide how completely they shall carry out that program.

* * *

Influenza May Come: Therefore Prepare

With the coming of the time of year at which last winter's influenza epidemic took its rise, the question naturally arises whether the winter is to see a recurrence. Authorities differ in their opinions on this question and all agree that no certain prediction, either that the epidemic will recur or that it will not recur, can be made.

The only statement that can be made with certainty is that a recurrence *may* come. Every community, therefore, should be ready to meet a recurrence if it does appear.

Much of the havoc wrought by the outbreak of a year ago was due to our unreadiness to meet the situation. With the lesson taught by this experience fresh in our minds, there ought to be no danger of a repetition of this unpreparedness. Unfortunately, however, human beings are prone to delay their preparations for emergencies until the emergencies appear. Without urging, the public will not make a very loud demand for preparedness against a new epidemic.

It rests with the health authorities, therefore, to lead public thought in this regard — to bring constantly to the attention of the people the danger of a repetition of the influenza outbreak and to demand adequate support for preparedness measures that will keep the mortality at a minimum if the disease recurs.

* * *

A Recent and Valuable Influenza Discussion

The study of "The Epidemiology of Influenza," by Surgeon W. H. Frost of the United States Public Health Service, which is reviewed in this magazine, should be read by public health workers who wish to gain possession of facts developed by some of the most recent investigations of this disease. The review which we publish presents only a few of the salient points, and a comprehensive understanding of the article demands a complete reading of it. It appeared in *Public Health Reports* for August 15, and in the *Journal of the American Medical Association* for August 2.

There is much that is problematical in influenza, but certain facts have been more or less clearly established by investigators during recent months. Frost has combined some of the more important of these observations with his own independent work and the result is an up-to-date discussion of the epidemiological phases of the disease.

* * *

Some Comments Upon the 1918 Mortality Figures

From a public health viewpoint, a number of facts contained in the 1918 mortality statistics by causes, presented elsewhere in this magazine, are worthy of comment.

In the first place, two cautions should be noted: First, the point mentioned in the discussion accompanying the statistics, that slight decreases in deaths from particular causes should not be stressed, these probably being due in part to the abnormally high influenza and pneumonia mortality; second, that the rates given are based on the census bureau estimates of population, which at this late stage of the decennial period are probably inaccurate.

The increase in tuberculosis deaths is notable, especially since it follows another increase which occurred in the in the preceding year. We repeat the comment which this magazine made in discussing the 1917 rise: "This fact emphasizes the need for continued anti-tuberculosis work, and especially for more district hospitals."

Organic heart diseases, apoplexy, cancer, Bright's disease and arterial diseases, important causes of death whose rates have been rising in recent years, remained practically stationary last year. Perhaps,

however, had the influence of the influenza epidemic been removed, some or all of them would have registered their normal increases.

The continued decrease in deaths of infants from diarrhea and enteritis offers encouragement to those who have been working for child welfare in Ohio. Since nearly all deaths from this cause occur in the hot summer months, earlier than the time when the epidemic began, this can be considered as a real decrease and not as a result of the high influenza mortality.

Much less satisfactory than the diarrhea and enteritis rate is that for typhoid fever, showing an increase over 1917 figures despite the clearness with which the principles of typhoid prevention are understood. Study of the typhoid fever situation in Ohio makes it apparent that rural typhoid has caused the State's typhoid rate to remain stationary in recent years after it had steadily decreased for several years preceding. Most cities of Ohio have installed effective methods of safeguarding their citizens against water-borne typhoid fever, but the country districts and small towns have failed to keep pace with them. Until this situation is remedied, and effective rural sanitation is carried out, we can not expect further decreases in the typhoid fever rate. Happily, such improvement is in prospect, as under the Hughes Act the rural areas of the State are for the first time to have a real public health organization.

The rates for the leading childhood epidemic diseases — whooping cough, diphtheria, measles and scarlet fever — are low, except in the case of whooping cough, which is high. The general trend, however, is normal in all these diseases, although it is worthy of note that diphtheria fell unusually low last year — in part as a result, we may assume, of increased use of antitoxin, in part because of more complete bacteriological control. These four diseases follow fairly regular cycles, a period of high prevalence being followed by a few low rate years and *vice versa*. Scarlet fever and measles have reached the low points of their curves and a rise may be expected this year or next. While the decline in diphtheria mortality is pleasing, it falls far short of the decline which it is hoped the next few years will bring, with antitoxin distributed free in every county as required by the Hughes Act and better diagnosis because of more complete laboratory service. The whooping cough mortality rate remains too high, the high point of the present cycle being no lower than that of the previous one. Methods of controlling this disease are becoming better understood, and more attention should be paid to it by health officials, physicians and the general public. A disease which has killed nearly two thousand children in the past three years is too serious to be left unnoticed.

The smallpox mortality rate reflects the epidemic conditions which prevailed in many parts of the State during 1918, and which have not yet come to a close. Twenty-two deaths in a year from a disease for which nearly infallible preventive methods have been known for more than a century constitute a situation which might be classed as absurd were it not so tragic. The figures give point to the oft-repeated assertion that severe cases of smallpox frequently occur in the midst of an epidemic of the mild form of the disease. It is to be hoped that, with the disease still prevailing in many localities, Ohioans will take warning from these death statistics and be vaccinated before it is too late.

* * *

Ohio State University Renders Great Service

The people of the State should be keenly appreciative of the service the Ohio State University College of Medicine has rendered in opening a free extension course, covering three months, to train men and women for public health positions under the new local health administrative system to be installed in Ohio.

Few residents of Ohio have had the experience and training necessary to fit them, without further preparation, for these important posts. Many men and women in the State, however, have the foundations upon which to build up the necessary specialized knowledge.

The University's training course will place many of this latter class in a position to qualify for health commissionerships and other positions, thus developing within the borders of the State the trained personnel required to carry the new Hughes Law system to success.

It is an important and a welcome service which the University has rendered, and the State Department of Health speaks for all of Ohio when it takes this method of recognizing that service.

* * *

Schools Playing Big Part in Health Development

School officials and teachers of Ohio are to be congratulated upon the interest which they are taking in matters pertaining to public health. Constantly increasing attention is being paid to health education in many schools of the State, and many teachers are taking quite seriously their responsibilities as aides to health officials in protecting the health of the public. Requests for literature and information on health topics come in to the State Department of Health more frequently, perhaps, from school teachers than from any other one class of persons.

The Department appreciates very much this splendid spirit of co-operation. Since the school must always be the leader of community thought in America, the aid of the schools in the health field means that the coming generation is going to understand more fully the problems of personal and public hygiene and is going to be in sympathy with movements designed for the improvement of the health of the people.

Not in any spirit of dictation, therefore, but rather in an effort to outline to the teachers of the State definite points on which the health authorities need the aid they have shown themselves to be so willing to give, the State Department of Health makes these suggestions:

1. Aid in informing the people of your community in regard to the new Hughes Act health system and developing public sentiment to an appreciation of the need for better health protection in Ohio — especially rural Ohio. Information you may need in this work will cheerfully be supplied by the State Department of Health, in so far as it has the necessary data at its command.

2. Report promptly to the health officer any indications of disease in your pupils. By so doing you may prevent an epidemic.

3. Report promptly to the health officer any insanitary condition about your schoolhouse or grounds, which may endanger your pupils' health. The health officer has authority to force correction of such conditions.

4. Make your school a center for health education by informing yourself on health subjects and imparting such knowledge to your pupils. Co-operate with organized work for public health education in the schools. Join any county public health organization which may be formed by persons interested in public health work in your locality. Educational literature which may be of service to you is distributed free by the State Department of Health.

5. Establish an acquaintance with your district health commissioner and his assistants as soon as the Hughes Act goes into operation January 1. They will be glad to know you and to co-operate with you.

BUY RED CROSS SEALS

SUPPORT THE FIGHT AGAINST TUBERCULOSIS

HELP SAVE LIVES OF CHILDREN LIKE THESE

Ohio's 1918 Mortality by Causes

Statistics Furnished by State Bureau of Vital Statistics, J. E. Monger, M. D., Director.

OHIO'S LEADING DISEASE CAUSES OF DEATH, 1918

(Diseases are listed in order of death rates. Only those which had rates of 10.0 or over per 100,000 population in either 1917 or 1918 are included. Diseases in italics had lower rates in 1918 than in 1917)

	Deaths	*Deaths*	*Rate*	*Rate*
Influenza	14,986	959	284.16	18.40
Lobar pneumonia	9,605	4,864	182.13	93.32
Organic diseases of the heart	8,581	8,656	162.71	166.08
Tuberculosis (all forms)	7,649	7,450	145.04	142.99
Apoplexy	5,836	5,854	110.66	112.32
Cancer and other malignant tumors	4,804	4,780	97.09	91.71
Bright's disease	4,289	4,583	81.33	87.93
Broncho pneumonia	3,223	2,874	61.11	55.14
Diarrhea and enteritis (under two years of age)	2,733	3,016	51.82	57.87
Arterial diseases	1,519	1,641	28.80	31.48
Diabetes	893	910	16.93	17.29
Typhoid fever	771	690	14.62	13.24
Whooping cough	687	609	13.03	11.69
Cirrhosis of the liver	674	759	12.78	14.56
Diarrhea and enteritis (two years of age and over)	664	641	12.59	12.30
Appendicitis and typhlitis	641	626	12.15	12.01
Syphilis	593	599	11.24	11.49
Diphtheria and croup	497	749	9.42	14.37
Angina pectoris	485	537	9.20	10.30
Acute bronchitis	448	537	8.49	10.30
Measles	270	564	5.12	10.82

THE outstanding feature of the 1918 mortality figures for Ohio is, of course, the heavy increase due to the influenza epidemic. This disease outbreak brought the total death rate up from 14.75 in 1917 to 17.82 in 1918. Influenza and pneumonia caused nearly thirty per cent of all the 1918 deaths. Deaths directly attributed to influenza in the year's total number 14,986, giving a rate of 284.16 per 100,000; the previous year's influenza total was 959 and its rate 18.4. Pneumonia death totals and death rates, largely representing results of the influenza epidemic, are as follows for 1918:

DEATHS AND DEATH RATES, OHIO, 1917 AND 1918, GROUPED ACCORDING TO GENERAL CLASSES OF CAUSES

	Classes	*Deaths* 1918	*Deaths* 1917	*Rate* 1918	*Rate* 1917
	TOTAL, ALL CAUSES	93,965	74,893	17.82	14.75
I.	General diseases	33,216	19,806	629.83	380.00
II.	Diseases of the nervous system	8,431	8,676	159.87	166.46
III.	Diseases of the circulatory system	11,283	11,623	213.94	223.00
IV.	Diseases of the respiratory system	14,246	9,336	270.13	179.12
V.	Diseases of the digestive system	7,015	7,390	133.02	141.79
VI.	Diseases of the genito-urinary system	5,375	5,954	101.92	114.24
VII.	The puerperal state	1,171	837	22.20	16.06
VIII.	Diseases of the skin	219	200	4.15	3.84
IX.	Diseases of the bones	125	137	2.37	2.63
X.	Malformations	1,051	931	19.93	17.86
XI.	Early infancy	4,034	3,933	76.49	75.46
XII.	Old age	769	693	14.58	13.30
XIII.	External causes	6,458	6,845	122.45	131.33

lobar pneumonia, 9,605, 182.13; broncho pneumonia, 3,223, 61.11; pneumonia (undefined), 214, 4.06. The 1918 figures, it should be remembered, cover only three months of the epidemic, which extended into the spring of the present year.

The sharp rise in the total death rate and in the influenza and pneumonia rates is accompanied by decreases in deaths from certain other causes. This was to have been expected: with so many more deaths than normal resulting from influenza and pneumonia, it is but natural that fewer deaths than usual should result from other causes. In other words, many persons died as a result of the epidemic whose deaths would normally have been due to other diseases. In comparisons with other years, therefore, too much stress should not be laid on 1918 decreases in deaths from specified causes.

The table at the head of this article lists death totals and rates for the principal diseases in 1918, as compared with the corresponding figures for the preceding year. In the other table accompanying the article deaths are grouped according to general classes. Totals for counties and certain cities were presented in the April number of the OHIO PUBLIC HEALTH JOURNAL (page 150).

In addition to the figures for the principal diseases, the following statistics for certain diseases whose rates did not exceed 10.0 per 100,000 population are of interest:

Diseases	*Deaths* 1918	*Deaths* 1917	*Rate* 1918	*Rate* 1917
Scarlet fever	170	197	3.22	3.78
Epidemic cerebrospinal meningitis	161	313	3.05	6.01
Poliomyelitis	55	124	1.04	2.38
Smallpox	22	9	.42	.17

Will Influenza Recur?

An Expression of Opinion by the Ohio State Department of Health

Will the influenza epidemic recur this fall?

The evidence at our disposal is not sufficiently definite or complete to enable a positive answer to be given to this question. The occurrence of an epidemic of any disease depends upon two known factors and perhaps on others of which we are ignorant. The two known factors are the presence of a sufficiently large percentage of susceptible persons in the population and the introduction or development of a strain of virus of sufficient virulence. The second factor may not be of importance, as it is probable that in the presence of a highly susceptible population even a virus of very low virulence may soon assume a highly virulent form.

The important factor for consideration, therefore, is whether there is in the population of the country at this time a sufficient percentage of susceptible persons to permit the establishment of epidemic conditions. This in turn depends upon the duration of immunity to the disease. The pandemic of the fall and winter of 1918-1919 was so extensive and the rate of incidence so high that we are reasonably safe in assuming that all susceptible persons had the disease. The evidence gathered in the army camps proved conclusively that troops who went through mild exipemics of the disease in the spring and summer of 1918 exhibited a marked immunity in the fall of 1918. We are, therefore, quite safe in assuming that the disease confers quite a marked immunity, and that the population of the country was well immunized within twelve months. The question, therefore, depends upon the duration of the immunity to the disease. If it is a matter of months, we are in danger of a recurrence of the disease this fall. If it is a matter of years, the danger is nonexistent.

Upon the question of the length of the immunity to the disease, the evidence is suggestive. The troops who suffered from mild influenza in the winter and spring of 1917-1918 were relatively quite immune to the disease in a much more virulent form a year later. Troops from urban districts exhibited almost complete immunity to mild influenza during the winter and spring of 1917-1918. Lastly, and perhaps most significant of all, the highest incidence and mortality from the disease during the pandemic was in persons below the age of exposure during the previous pandemic of influenza. These facts would tend strongly to show that immunity is marked and persistent.

Such evidence as we have, therefore, would indicate that the probability of a recurrence in anything resembling the pandemic of last winter is not strong. The only evidence to the contrary is the fact that the previous pandemic lasted, so far as present records show, during three winters. The available information regarding the previous epidemic, however, is exceedingly fragmentary and unsatisfactory,

and there is nothing to indicate that the epidemic of that time even remotely approached that of 1918-1919 in rate of incidence or in mortality. Even assuming the three-year cycle, however, Frost has pointed out that the epidemic of 1918-1919 was really the crest of a three-year wave.

Summing up, therefore, we believe that the weight of evidence tends strongly to show that there will be no epidemic this fall at all comparable to that of last winter. There will in all probability be localized outbreaks, particularly in small rural comunities. There may also be epidemics of colds and bronchitis.

These conclusions, however, should not be interpreted to minimize the importance of thorough preparation for a recurrence of the epidemic, should it come. Every community should take stock of its hospital accommodations and lay plans for the operation of emergency hospitals should they be needed. The medical profession should be prepared to cover parts of the State at present without adequate medical service, and boards of health should prepare the necessary regulations and educational matter and arrange for immediate extension of their facilities should the need present itself.

Real Beginning of Influenza Epidemic May Have Been Mor · Than a Year Ago

THAT the influenza pandemic of the winter of 1918-19 may have been the third phase of a three-year epidemic similar to previous influenza outbreaks is the theory advanced by Surgeon W. H. Frost, United States Public Health Service, in *Public Health Reports* for August 15 and in the *Journal of the American Medical Association* for August 2. Statistics showing that in at least several parts of the country there were sharp rises in influenza and pneumonia mortality in the winter of 1915-16 and in the early months of 1918 are cited in support of this view of the situation.

"The rise in mortality from this group of etiologically heterogeneous diseases in the spring of 1918 is so sudden, so marked and so general throughout the United States as to point very clearly to the operation of a single definite and specific cause, something largely independent of meteorologic and other conditions," says Frost. "The observed occurrence of local epidemics of influenza at that time in widely scattered localities, the intimate association established at Camp Funston between the epidemic of influenza and pneumonia and the subsequent development of the influenza pandemic, all indicate that the increased pneumonia mortality of March and April, 1918, was the consequence of a beginning and largely unnoticed epidemic of influenza, the beginning in this country of the great pandemic which developed in the autumn."

The article is a general epidemiological study of influenza, with particular reference to the recent pandemic. It includes statistical material from Massachusetts for the period 1887-1916, including the epidemic previous to the recent

(*Concluded on page* 353.)

The Hughes Act: Why It Was Passed—What It Is —What It Will Do for Ohio

EDITOR'S NOTE.—Most of the facts presented in the following article have been dwelt upon in previous issues of the OHIO PUBLIC HEALTH JOURNAL. With the reorganization under the Hughes Act actively in progress, however, it becomes important to have in conveniently available form a résumé of the conditions in Ohio which led up to the passage of this health measure and a brief statement of the principal provisions of the bill. This article, which will also be published in pamphlet form by the State Department of Health, gives this information in condensed form and should be useful to officials and other persons who are interested in public health matters and have occasion to discuss the Hughes Act from time to time.

Why the Hughes Act Was Passed

The war and the disastrous influenza epidemic of 1918-19 revealed the weakness of local health organization in Ohio.

Thirty of every one hundred men examined by draft boards were physically unfit to serve their country. Most of the physical defects from which they suffered were preventable ones. Efficient health departments could have prevented this loss of vital power.

But Ohio did not have efficient local health departments.

Under the old health laws Ohio had 2,150 health districts, independent of each other and subject to little state control. Each city, each village and each township constituted such an independent district. The very great majority of these districts were too small and too weak financially to employ competent health officers. Even where reasonably competent officials were obtained, their salaries were so small that they could give only part-time service.

Only a few of the larger cities were able to employ competent, whole-time health officers. And only the cities provided with competent, whole-time health officers have been receiving reasonable protection against disease.

Typhoid fever costs the State at least $5,000,000 every year. In the ten years 1909-1918, inclusive, 7,141 persons died of typhoid fever in the State of Ohio. The typhoid fever death rate in the large cities has been appreciably reduced, but in the rural districts it has not been reduced.

During the ten years 1909-1918 tuberculosis caused the death of 63,947 persons. The rate has not been reduced appreciably.

Everyone believes that the country is healthier for children than the city. Yet investigations in many counties in Ohio show that physical defects are more common in rural districts than in cities.

Why? Because the larger cities have efficient health departments which undertake physical supervision of school children. This is not done in rural schools. Three-fourths of the children in a country school district in Ohio were found to need medical attention. Only seven per cent usually need medical attention in cities where there is physical supervision of school children.

Investigation has revealed that children in rural schools frequently attend dirty, badly lighted, poorly ventilated schools, sit at ill-fitting desks which cause deformities, lose

a great deal of time when the school is closed for communicable diseases, and generally lack most of the school advantages of their city brothers and sisters.

These, however, are ordinary, every-day matters, more apparent to the trained public health worker than to the average citizen. They do not present the weaknesses of Ohio's old local health machinery in a dramatic manner.

An emergency was required to do that. The emergency came in the form of an influenza epidemic in the form of an influenza epidemic in the fall of 1918.

The epidemic raged throughout the winter and killed 25,000 Ohioans. It is no exaggeration to say that hundreds of these lives could have been saved had efficient local health departments been in existence to cope with the epidemic at its beginning.

As it was, local health departments throughout the State broke down under the strain, either because their health officials were untrained men without knowledge of how to handle the situation or because these officials were overworked physicians whose private practice demanded so much attention that public health duties were neglected.

The influenza epidemic was the last straw. It revealed to the people what public health officials had long known — the utter inability of Ohio communities under existing health laws to protect themselves against really serious outbreaks of disease.

So the Hughes Act was passed. It met with practically no opposition in the General Assembly.

What the Hughes Act Is.

The Hughes Act is a law which provides for Ohio an efficient system of local health administration, manned by thoroughly competent health officials.

It establishes 102 strong health districts, in place of 2,150 weak ones existing under old laws. It requires each of these districts to employ, under civil service rules, a competent, whole-time health commissioner, with at least one public health nurse and at least one clerk. While leaving the districts independent in purely local matters, the law brings them, in so far as matters of statewide interest are concerned, under the supervision of the State Department of Health.

The health districts established by the Hughes Act are of two classes — municipal districts and general districts. Each city of more than 25,000 population according to the 1910 census constitutes a municipal district, and the territory in each county, exclusive of municipal districts within its borders, constitutes a general district. Authority is given for the voluntary union of two general districts into a single general district, and for a voluntary contract between a municipal and a general district by which the municipal district's jurisdiction is extended to include the general district.

In cities constituting municipal districts, health organization continues much as under the old system — a five-member board of health appointed by the mayor, which board chooses as its executive agent a health officer. The important changes in the municipal district are: (1) the board of health must employ at least one public health nurse and one clerk in addition to the health commissioner; (2) all these employes must serve on a whole-time basis; (3) all appointments must be made under civil service rules.

In the general district, the organization is entirely new. The law provides for a district advisory council, which consists of the mayors of all municipalities and the chairmen of all township boards of trustees in the district. This council selects a five-member board of health, of which two members must be physicians, one an attorney and one a farmer. Neither members of the council nor members of the board receive compensation other than reimbursement for expenses incurred in attending meetings. One member of the board of health is chosen annually for a five-year term.

The general district board of health has powers and duties similar to those of present local boards of health. Its duties, however, are prescribed in more detail than are those of the present boards and include a variety of important health services which are not available to residents of rural districts under the present system. The minimum official staff in the general district, as in the municipal district, comprises a health commissioner, at least one nurse and at least one clerk, all chosen by the district board of health from civil service eligible lists and all serving on a whole-time basis.

In addition to these employees specifically required, the board in either class of health district must employ such other persons as may be necessary for the proper conduct of its work. It must employ enough public health nurses "to provide adequate public health nursing service to all parts of the district."

Duties of both municipal and general district boards of health which are specifically mentioned in the Hughes Act are: study and recording of prevalence of disease; prompt diagnosis and control of communicable disease; medical and dental supervision of school children; free treatment of venereal diseases and enforcement of the state venereal disease regulations; inspection of charitable and correctional institutions; inspection of food-handling establishments and medical examination of persons employed therein; inspection and abatement of nuisances; provision for laboratory work; free distribution of diphtheria antitoxin; maintenance of infant welfare stations and parental clinics; prevention and treatment of trachoma.

Budget procedure to govern the financing of the general health district is laid down in the law. The budget is formulated annually by the district board of health, which submits its estimates to the county auditor. The auditor presents the budget to the district advisory council for approval. The council may reduce but may not increase any item or the aggregate of all items in the budget. The budget as finally approved by the council is returned to the auditor, who apportions it on a basis of population among the municipalities and townships which constitute the district. The amount due from each such subdivision is withheld by the auditor when he makes his apportionments of revenues to such subdivisions. This in effect makes the health budget a second lien on the revenues of the district, subject to the prior claim of public debt charges only.

State financial aid for both general and municipal districts is provided in the form of annual payments equal to one-half the total of the salaries paid to the three required employees of the district, with $2,000 fixed as the maximum annual payment to any district.

Payment of this subsidy is conditional upon certification by the State Commissioner of Health that the board in question has complied with the orders of the State Department of Health and has truly and faithfully complied with the provisions of the Hughes Act.

To combat epidemics the district board of health may make emergency expenditures, apportioning these among the subdivisions in which the epidemic exists, which subdivisions must borrow money to make up the resulting deficiencies in their funds.

Examinations by the State Civil Service Commission of Ohio are to govern appointments by general district boards of health. In municipal districts the boards of health are to make their appointments from eligible lists certified by the municipal civil service commission, or in default of such lists from the State civil service lists. A health commissioner is subject to removal for cause by a majority vote of the membership of the district board of health, and in case of removal is entitled to appeal to the public health council of the State Department of Health.

What the Hughes Act Will Do

To summarize some of the results which may confidently be expected from the Hughes Act, the following may be mentioned:

(1) Every community will get a dollar's worth of health protection for every dollar it spends for public health.

Much of the money spent on the old system has been wasted, as the inefficiency of the organization prevented the attainment of the aim of public health work — the prevention of disease. The old system cost the local districts of the State $1,500,000 in 1918.

(2) Sickness and death rates will be lowered.

This drop will be most marked for the easily preventable diseases, such as typhoid fever, diphtheria, smallpox and various infant illnesses. More gradually, however, will come a decrease in all the communicable diseases and in certain other ailments which are subject to more or less control. School medical supervision will play an important part in this reduction.

(3) The public will become better educated in regard to health.

The activities of the members of the local health department staffs, and especially of the public health nurses, will bring them into close touch with the people, enabling them to impart much information and give much advice in regard to betterment of personal health. The well-organized local departments will also provide a means of contact between the educational activities of the State Department of Health and the general public.

(4) The State will be ready to meet another epidemic of influenza or other disease.

The foregoing discussion has pointed out what the weakness of our health system did in 1918. If another epidemic comes, the existence of a strong health organization in every community will place the State in a position to check it in its early stages. Further, the constant watchfulness of efficient departments over health conditions will make the development of epidemics less probable.

(5) The next generation will be better physically than the present one.

Lack of adequate public health organization was responsible for much of the weakness in manpower disclosed by the draft examinations. The rising generation will be properly protected and the results will appear if another set of physical examinations like those of the draft is made in 1940. Protection against preventable diseases, education in matters of health and school medical supervision will aid in bringing about this improvement.

Hospitals and Dispensaries in Public Health Administration

Tentative Considerations Under Recent Legislation in Ohio

By H. J. Southmayd, Chief, Bureau of Hospitals, Ohio State Department of Health.

IN passing the Hughes Bill (House Bill 211), the Kryder Bill (Senate Bill 15), and the Talley Resolution (House Joint Resolution 13), the present General Assembly in Ohio recognized the growing importance of hospital and dispensary service as a factor in the public health, and very opportunely opened the way for accomplishing what is declared by hospital authorities to be the foremost need in the hospital world today. This is the need of a comprehensive study to determine the extent and relative status of hospital and dispensary accomplishments in the field of social service.

Essentially, the new matter incorporated by these measures so far as it relates to public health administration provides for a statewide survey of hospital and dispensary equipment and practice by the State Department of Health. Authority for collecting the necessary data is granted and report with legislative recommendation is required. The effect of this legislation is to broaden the relation between hospital, dispensary and public health administration by bringing *all* hospitals and dispensaries, public and private, within the scope of activities by this Department. A previous statute limited this relation to the inspection and license of maternity hospitals and the general supervision of tuberculosis hospitals and dispensaries.

The Hughes Act, which reorganizes the public health machinery of the State, by mandatory provision establishes dispensaries for venereal disease as a part of the local health department. Dispensaries for other purposes and isolation hospitals may be established by the local health authorities under the provision of this bill.

The Kryder Act repeals the statutory definition of a maternity hospital, empowers the Commissioner of Health to define and classify hospitals and dispensaries and requires all hospitals and dispensaries to register with, and report annually to, the State Department of Health. Under this bill the Commissioner of Health may inspect and license maternity hospitals, applications to operate which must be approved by the local health department. This measure was the recommendation of a committee appointed by the Governor at the last General Assembly to investigate the various medical service agencies of the State.

The Talley Resolution provides for a survey of the hospital and dispensary facilities of the state and a study of their relations to the public and to each other. The terms of this resolution obligate the State Department of Health

to undertake this work and require a report with legislative recommendations. This resolution grew out of the situation developed by the recent influenza epidemic when it was found that certain localities were deficient in hospital and dispensary facilities under even normal conditions.

The provisions of these measures in their relations to the public health administration, hospital and dispensary and to each other, are not only consistent but are distinctly complementary and correlative, and so constitute a potential basis for the promotion of the public health and the interests of hospitals and dispensaries.

The most successful carrying out of the functions defined by them depends entirely upon co-operative effort of public health officials and the representatives of hospitals and dispensaries. Final responsibility rests with the Department of Health, as it must initiate the new relation. It is apparent that the manner of approach and carrying on will govern, to a great extent, the degree in co-operation that will be forthcoming, notwithstanding that the law obligates hospitals and dispensaries to discharge certain duties in this connection. However perfectly the letter of the law may be complied with, unless a co-operative spirit is evident, little of value will be accomplished, as the ultimate purpose of this legislation, no doubt, is to develop a deeper sense of the interdependence of public health, hospital and dispensary activities.

So far as has been determined at this time, the establishment of official relations between a State public health administration and the whole of the hospital and dispensary field is a novel departure, in this country at least. The obstacles to be overcome are unknown, no precedent having been established. As the success of the undertaking depends upon the co-operative effort of the institutions and organizations involved, the State Department of Health, in initiating relations, will use every means to secure such effort. As hospital authorities state that their greatest need today is a broad study of institutional medical service to determine its social status, and admit that without state aid that purpose cannot be well accomplished, it would seem that so far as hospitals, dispensaries and health department are responsible no serious obstacles will be encountered and a high degree of co-operation will obtain.

It has been inferred here that a definite relation exists between hospital and dispensary service and the public health. The legislature, in this and other states, has often assumed the actuality of this relation in passing laws giving health departments a degree of supervisory power over certain types of hospitals and dispensaries. The present General Assembly in Ohio, by establishing active, though not supervisory, relations between the health department and all hospitals and dispensaries, practically assumes that all organized and institutional medical service may bear some definite relation to the public health. While this will be generally admitted, there may be some question of whether the relation is intimate enough or tangible enough to form a basis for result-producing activities.

Granting for the moment that such a relation does exist, there is then the question of why activities based on such relation were not taken up long ago. In point of fact activities based on this relation have long been pursued. The establish-

ment and maintenance of hospitals and dispensaries out of public funds is a well established and unquestioned procedure. The authority for this is found in the inherent right of the state to take almost unlimited steps to protect the public health. The same authority delegated to subdivisions of the state enables the establishment of local institutions.

The assumption, then, that hospitals and dispensaries bear a relation to public health is well grounded in law. It may be reasonably assumed, without becoming entangled in a discussion of the relative legal status of public and private institutions and their respective rights and responsibilities, that if a relation between public medical service institutions and the public health exists, then from a standpoint of medical service alone, private institutions doing the same work bear the same relation.

If active relation between all hospitals, dispensaries and public health agencies in this basis seems somewhat impractical, vague or obscure, it is because of a narrow, though generally prevalent conception of public health administration that limits its field to restricted activities in the control of epidemic or even preventable diseases, combined with the tradition that hospitals and dispensaries are purely remedial establishments. Admittedly in the past, now, even, these institutions are commonly recognized as strictly curative agencies and generally are not correlated with public health administration by statute. This alternative, however, has been developing rapidly in recent years as a result of the widening fields of institutional medical service and public health administration. The hospital field now by including the contagious, the tuberculosis and the isolation hospital, venereal disease wards, dispensary and social service activities, comprises functions that are clearly public health ministrations.

Public health administration, at first concerned with a few acute epidemic diseases, soon added the remainder of this class, then the chronic infections, and now all preventable diseases are public health considerations.

No doubt diseases not now known to be preventable and hospitalized as remedial or palliative will fall into the category of preventable diseases and thus at once be subject to public health and hospital administration.

Finally, public health administration may be conceived to be that agency held responsible for the health of the public as a whole, its functions being limited to no particular class of diseases or afflictions, its field covering whatever may affect the efficiency of the state so far as disease and its treatment may be held accountable.

Granting even a small part of the possible expansion of hospital and public health fields, a coincidence of their activities is inevitable, is indeed present in measure sufficient to attract legislative action. That in itself is evidence of the practical extent and soundness of the relation of hospitals and dispensaries to public health. Legislation does not ride upon the crest of a wave.

Development of hospital, dispensary and public health activities has been unaccountably rapid in recent years, so rapid that no individuals or groups of individuals in particular fields presume to say how far they have gone in their respective efforts, much less in their relations to one another. Industrial

accident insurance, a matter of deep concern to hospital and medical practice, has become almost nation-wide within a few years. A more intimate relation between medical education and a hospital function is assured by the requirement of the the interne year for license. Social health insurance is an imminent possibility of mutual interest to public, medical practitioner and hospital. All of these are integrally bound up with the broad conception of the public health and some of them are of immediate significance in that direction. A situation is therefore presented which demands the attention and concerted efforts of health department, hospital and dispensary if rapidly multiplying difficulties are not to become well nigh insurmountable.

Action of the present General Assembly in Ohio furnishes the authority and means for a public contribution to the solution of the present situation. The State Department of Health has been designated to undertake the work involved. A Bureau of Hospitals has been established in the Division of Hygiene of this Department and activities have been initiated in forwarding forms for registration to hospitals and dispensaries, this constituting a specific provision of the Kryder Bill. Early returns are gratifying and forecast an unexampled degree of co-operation both from the large number of returns and the thorough manner in which the forms are completed.

The registration blanks for hospitals ask for the following information: Name and address, date of establishment, normal bed capacity, name and title of chief executive, ownership, details of incorporation, statement of classes of work undertaken as routine and of foremost activity or specialty, equipment for laboratory work, social service work if any (care of ambulant cases, visiting medical or nursing service), classes of persons admitted to hospital, statement whether institution holds State license to admit and treat maternity patients. The dispensary blanks are similar to those for hospitals, with differences where the hospital questions obviously would not fit the dispensary situation. Each blank when sent out is accompanied by an explanatory circular to guide the hospital executive in formulating his replies.

Turning from the external relations of the health department, it is quite essential to the present undertaking that activities within public health administration, so far as they apply, be effectively correlated. In a statewide aspect, the organization of public health activities is extensive and complex. From a functional viewpoint, hospitals and dispensaries are of especial interest to the several departments of communicable disease, venereal disease, tuberculosis, child hygiene and industrial hygiene. Ranging from a slightly less to a remote degree they are related to practically every public health activity. From the standpoint of agency, hospital and dispensary service has a bearing on both the State and local public organizations, as well as on voluntary agencies doing public health work in one form or another.

The concurrence of the statewide reorganization of public health work, now in progress under the Hughes Bill, with the establishing of new relations with hospitals and dispensaries has precluded at this early date the formulation and adoption of definite policies and

program for the internal organization of these relations. Discussion of this phase of the question is therefore on a presumptive basis but may be profitably undertaken in a general way.

Both the old and the new statutory relations between hospitals and public health administration must be considered in the light of the more intimate relation between State and local health departments under the provisions of the Hughes Act.

So far as local health administration is directly affected, the new legislation makes no change except that under the Hughes Act, which requires the maintenance of venereal disease dispensaries in each local health district. The local administrations are authorized to establish and maintain isolation hospitals and approve applications for conducting maternity hospitals as heretofore.

The Kryder Act and the Talley Resolution, which incorporate the remainder of the new matter, specify that the State Department of Health shall undertake the activities for which they provide, no mention being made of any responsibility of the local organizations.

The Hughes Act, however, through provision direct and through the form of organization authorized, correlates more closely the work of local and State departments than past laws have permitted.

Further assurance of closer working relations is assured by legislation adding a number of field supervisors and public health nurses to the staff of the State Department of Health. It is the duty of these agents to assist the local administration in organizing and meeting the requirements of the new public health measure. Under these provisions the public health administration of the State will present an aspect of solidarity heretofore lacking. It may, therefore, be reasonably assumed that any activity undertaken by the State Department of Health will be participated in by the local departments.

Whether it was contemplated when the Hughes Bill was framed that the relations between health departments, hospitals and dispensaries would be extended further than provided by its own text is not known at the moment, but particular attention was given in its design toward provision to meet contingencies arising from the extension of a public health field. It is altogether possible then that the local health department will be involved in the extended relations with hospital and dispensary by assisting the State office either directly or through its field staff. As the new hospital legislation essentially provides for study only, it is not expected that much, if any, routine will devolve upon the local departments or the field staff of the State department as a result of these measures. It is possible, however, that routine inspection of maternity hospitals and institutions for the care of mothers and infants may become a question of field staff and eventually of local routine.

An instance of how the local department may assist in the new work has already been encountered and may be mentioned. In the matter of compiling a mailing list, it was discovered that no directory or combination of directories available would give a complete list of hospitals and dispensaries in operation. It may be that local departments will be asked to list and report to the State Department of

Health all such institutions in their district.

Among the immediate plans of the State Department may be mentioned the intention to call at an early date a meeting of hospital representatives from over Ohio to discuss the question of definition and the classification of hospitals and dispensaries. It is also expected that a form of annual report will be developed and forwarded to institutions in time to report for the calendar year 1919. In general, this report will relate to the amount and type of work done, cost of maintenance, number and distribution of the personnel attached to the institution, and such other matters as will contribute to valuable comparison. It is expected also that a comprehensive questionnaire will be submitted in the near future to assemble data which will form a basis for classification.

In pursuing the duties incumbent upon it under the new legislation, it will be the policy of the Department always to give due regard to the opinions of hospital and dispensary representatives. Conferences will be arranged for from time to time as occasion demands, in which hospitals and dispensaries will be represented. Propositions affecting the institutions in any important sense will be discussed and the department's policies and program adopted accordingly. This course, rather than arbitrary decision and action, is chosen not only to gain the active co-operation of the hospitals and dispensaries, but also to profit by their judgment and experience and thereby accomplish more thoroughly and quickly the purpose of the recent legislation. Any achievement under this plan, it is felt, must necessarily promote the interests of public, hospital and dispensary.

Real Beginning of Influenza Epidemic May Have Been More Than a Year Ago.

(*Concluded from page* 343.)

one, and for several cities for the recent outbreak. An epidemiological study of the 1918 outbreak in both Great Britain and the United States is included.

Data collected in house-to-house surveys in Baltimore and San Francisco, according to Frost, indicate that an attack of influenza confers immunity for a certain period thereafter.

Discussing the general characteristics of the epidemic, Frost says:

"In general this epidemic has been quite similar to that of 1889-90 in its early development, first in mild scattered outbreaks, later in a severe world-wide epidemic; in the rapidity of its spread and in its high case incidence. It has been notably different in a much higher frequency of pneumonia and consequently much higher mortality, especially among young adults.

"Such evidence as has been collected confirms the conclusion previously reached that the infection is transmitted directly by 'contact' in the broad sense. It appears probable, however, that the infection was already widely disseminated in this country some time before a serious epidemic was recognized."

The hope, though not the conclusion, that the epidemic has run its course is justified by certain facts, says Frost, who points out, however, that at least local recurrences are to be expected, with an increase over normal pneumonia mortality continuing perhaps for several years. These probabilities, he advises, make it desirable to prepare "by previous organization of forces and measures for attempted prevention, treatment and scientific investigation."

Orders and Regulations Governing the Sale of Ice Cream, Sodas and Soda Fountain Sundries

As Amended By Recent Action of the Public Health Council.

RULE 1. — In order that the sale of ice cream, sodas, soda fountain sundries and other beverages may be conducted under sanitary conditions the operators of ice cream parlors, soda fountains and other establishments serving beverages are hereby instructed that all such goods shall be dispensed only in clean or sterile containers. To this end it is ordered that all such establishments be provided with facilities for the thorough cleansing of dippers, glasses, spoons, serving dishes and any other vessel or utensil coming in contact with ice cream, sodas, soda fountain sundries or other beverages.

RULE 2. — Facilities for the cleansing or sterilization of dippers, glasses, spoons, serving dishes and any other vessel or utensil coming in contact with ice cream, sodas, soda fountain sundries or other beverages shall include

(a) An adequate supply of hot and cold water of a quality suitable for drinking purposes.

(b) Suitable arrangements for supplying boiling water, live steam, or hot air, at a temperature of not less than 250° F.

(c) Suitable provision for taking care of clean or sterile glasses, dishes, etc., so as to keep same clean until wanted for use.

(d) Spoons must be exposed to boiling water, live steam or hot air at not less than 250° F. for a period of not less than five minutes.

RULE 3. — All dishes and utensils, after each individual service, shall be first washed by rinsing in cold water, then thoroughly washing in hot water with soap or suitable cleansing powder, or exposed to live steam, boiling water, or hot air at a temperature of not less than 250° F. for a period of five minutes, then rinsing in clean cold water and draining.

In lieu of the above requirement or when it is found impossible or inexpedient to use live steam, boiling water or hot air, sterile dishes, cups and spoons manufactured from paper, wood or any other suitable material, and handled in a sanitary manner, and used for one service only, will be allowed.

RULE 4. — Refrigerators at soda fountains shall be kept clean by washing with hot water and soap or washing powder.

RULE 5. — Employees in such establishments shall be cleanly in person and dress, free from infectious and contagious disease and trained in the conduct of their work.

RULE 6. — The use of straws is forbidden except when such straws are protected from dust, dirt and handling by employees or others.

RULE 7. — As soon as empty all ice cream containers, milk and cream cans shall be thoroughly rinsed with cold water and covered so that no foreign matter may enter said containers or cans.

RULE 8. — The foregoing orders and regulations (Rules 1-7 inclusive) shall take effect and be in force on and after November 1, 1919.

Adopted September 23, 1915.

Amended March 17, 1916.

Amended August 22, 1919.

Filed with the Secretary of State September 27, 1919.

Cincinnati Protects Babies

Nine baby health centers were conducted during the summer by the Cincinnati health department. Each had a force consisting of one district physician and two public health nurses, and served as a distributing center for certified milk, sold at cost to those unable to pay the retail price and furnished free, with funds which were given for that purpose, to persons unable to make any payment.

NEWS OF THE DEPARTMENT

GLEANED FROM DIVISIONAL REPORTS FOR AUGUST

DIVISION OF COMMUNICABLE DISEASES

An appropriation of the legislature for eight district health supervisors became available July 1, and shortly after this date eight physicians were employed in this capacity under this Division. During July a school was held to acquaint the district health supervisors with the Hughes Act and the duties they would be expected to perform.

During August these district health supervisors were sent into the field to advise the district advisory councils of the various counties how to proceed in organizing and appointing boards of health. This important work comprised the major part of the Division's activities during August, but, in addition, the following routine investigations were made:

The prevalence of smallpox in Fredericktown was investigated August 7. Five cases were found which had not been reported. No action had been taken in regard to these cases until the health officer of Mount Vernon visited them, made the diagnosis and advised their segregation in a smallpox hospital. On August 28 the district health supervisor visited Fredericktown, found that all cases were quarantined, that all exposures had been isolated or vaccinated and that general vaccination was progressing rapidly. Under the Hughes Act, the large expense attributed to smallpox each year in Ohio should be reduced to a minimum.

The prevalence of smallpox in Tobosa was investigated August 8. A previous investigation was made June 27, and since that time no reports had been received. Two cases were found and it was ascertained that there had been about a dozen since the beginning of May. The usual instructions were given.

On August 16 an investigation for smallpox was made at New Holland, Pickaway County. The outbreak developed about July 1, and the disease was not at first recognized. Five cases were found and instructions were given concerning reports, quarantine, isolation and vaccination.

The sources of typhoid fever in Salem Township, Warren County, were investigated August 21. The disease occurred in the non-incorporated village of Rochester. The first case developed on June 22, and four other cases have since occurred. All sources of the disease but the water supply were eliminated. The water used by the victims is drawn from dug wells with no protection against surface contamination, and the methods of disposing of night soil are most primitive. Given a primary case, the disease spreads easily through the usual vehicles of infection. Samples of the water supplies were taken and gross pollution was found. The usual recommendations concerning screening, isolating, disposal of sewage and safeguarding of water and milk supplies were made. The organization provided by the Hughes Act should and will prevent a great deal of rural typhoid,

and should save the State as much for this item alone as the whole organization will cost.

Arrangements were made at Portsmouth, August 21, for a trachoma survey of school children in Scioto county, under the direction of the United States Public Health Service, the State Department of Health and the Portsmouth Bureau of Community Service. A digest of the findings of this survey will be found in a later report.

On August 27, the prevalence of smallpox in the village of Harrison was investigated. Reports concerning the spread of smallpox had come from the health officer of Cincinnati. The disease developed some time in June but was not recognized by attending physicians. Eighteen cases were seen and histories of seventeen other cases were obtained. The usual recommendations concerning isolation, quarantine and vaccination were made. It is almost inconceivable that smallpox could spread to such an extent in a small village like Harrison under an effective health department.

An outbreak of dysentery at Spencerville was investigated on August 21. The outbreak began about August 1. Histories of thirty-four cases were collected from Spencerville and the adjoining townships. There were eighteen primary and sixteen secondary cases. Nearly all the primary cases used water from the six town pumps. Contact explains nearly all other cases. The usual inadequate arrangements for sewage disposal were found, and flies had free access to fecal material, to food and to children. "Flies were even seen crawling into the mouths of the ill and sleeping children." Ideal conditions were present for the fly transmission of a gastro-intestinal disease. Water from nine wells was examined and found polluted in five cases. Recommendations were made for screening houses, making privies fly-tight and waterproof and securing new sources of water supply where examination had shown the present source to be polluted. Suggestions as to proper methods of nursing and isolating cases were also made. Spencerville is a village of nearly 2,000 inhabitants, and arrangements should have been made before this time to install a public water supply and a system of sanitary sewerage. The present outbreak of dysentery, to say nothing of the four deaths which occurred, could have been easily prevented, after the first few cases developed, by an adequate health department.

Reported Cases of Notifiable Diseases, August, 1919

Prevalence — In order of greatest reported prevalence during the month of August, the notifiable diseases list as follows, with comparative figures given for July:

		Reported Cases	
	Disease	*August*	*July*
1.	Whooping cough ..	611	871
2.	Tuberculosis, all forms	594	604
3.	Typhoid fever	450	282
4.	Gonorrhea	400	259
5.	Diphtheria	383	315
6.	Measles	271	1,050
7.	Scarlet fever	251	230
8.	Syphilis	195	200
9.	Ophthalmia neonatorum	137	126
10.	Smallpox	107	168
11.	Mumps	83	162
12.	Chickenpox	50	101

For no other one notifiable disease was a total of 50 or more cases reported during August. The total of 3,773 cases of all notifiable diseases for the month is a decrease

of 628 cases from reports for July and a decrease of almost two thousand cases from reported cases for August 1918. At date of summarizing reports, September 15, 96 percent of all districts had submitted reports as required, and accurate checking of case history and monthly summary reports had been completed. The lower incidence for August of this year, as shown in Table I, is therefore comparatively true, equal allowance being made each year for incompleteness of reports due to the failure of physicians, nurses and others to submit reports as required.

From the city of New Philadelphia no monthly summary report has been received for three months. A few case history reports have been submitted during that period. New Philadelphia is the only city from which the regular report is not being submitted. That the summary report is a necessary check on case history reports is instanced by the fact that the city of Cleveland submitted 33 case history reports of diphtheria during August but the summary report recorded 146 cases. Practically all health districts make a much better showing in this respect, it is only fair to add.

TABLE I—REPORTED CASES OF NOTIFIABLE DISEASES, OHIO, AUGUST, 1917-1919, WITH DISTRIBUTION FOR CITIES AND FOR VILLAGES AND TOWNSHIPS AUGUST, 1919, AND CASE RATES PER THOUSAND POPULATION AUGUST, 1917-1919.

Disease	August, 1919			August, 1918	August, 1917	August Case Rates Per Thousand Population		
	Cities	Villages and Townships	Total			1919	1918	1917
All notifiable diseases	2,792	981	3,773	5,747	4,066	.709	1.092	.781
Chickenpox	34	16	50	82	57	.009	.015	.011
Diphtheria	290	93	383	259	448	.072	.049	.086
Gonorrhea	375	25	400	1,470	133	.075	.279	.026
Influenza	3	22	25	*	*	.005	*	*
Measles	216	55	271	290	131	.051	.055	.025
Measles, German	3	2	5	16	7	.001	.003	.001
Meningitis, Cerebrospinal	7	1	8	32	26	.001	.006	.005
Mumps	21	62	83	162	44	.015	.031	.008
Ophthalmia neonatorum	130	7	137	139	146	.026	.026	.028
Pneumonia, acute lobar	34	7	41	67	59	.008	.013	.011
Pneumonia, broncho	10	1	11	*	*	.002	*	*
Poliomyelitis	7	4	11	52	93	.002	.010	.018
Scarlet fever	164	87	251	238	228	.047	.045	.044
Smallpox	52	55	107	204	134	.085	.039	.026
Syphilis	192	3	195	637	99	.037	.121	.019
Trachoma	10	5	15	24	37	.003	.005	.007
Tuberculosis, all forms	479	115	594	617	533	.112	.117	.102
Typhoid fever	213	237	450	499	533	.085	.095	.102
Whooping cough	500	111	611	895	1,318	.115	.170	.253
Other notifiable diseases	52	73	125	64	40	.024	.012	.008

*Not notifiable.

TABLE II—REPORTED CASES, TEN NOTIFIABLE DISEASES, WITH TOTAL CASE RATES PER 1,000 POPULATION, OHIO CITIES, AUGUST, 1919.

City	Total Case Rate Per 1,000 Population	Total Reported Cases	Diphtheria	Measles	Meningitis, Cerebrospinal	Pneumonia, Acute lobar	Poliomyelitis	Scarlet Fever	Smallpox	Tuberculosis, All Forms	Typhoid Fever	Whooping Cough
Total	.65	1,962	290	216	7	34	7	164	52	479	213	500
Akron	1.56	142	.....	5	1	....	....	6	....	37	8	85
Alliance	.48	10	5	.....	....	....	....	1	....	1	3	....
Ashland*	.....	.....	.....	.....	....	....	....	.....	....	.....	.....	....
Ashtabula	.22	5	1	.....	....	....	....	.....	....	2	2	....
Athens	.52	4	.....	1	....	....	....	2	....	.....	1	....
Barberton	.85	12	2	2	....	....	....	.....	....	1	7	....
Bellaire	.06	1	.....	.....	....	....	....	1	....	.....	.....	....
Bellefontaine	.1	1	.....	.....	....	....	....	.....	....	.....	1	....
Bellevue	.16	1	.....	.....	....	....	....	.....	....	1	.....	....
Bucyrus	.83	8	.....	.....	....	....	....	3	1	.....	1	3
Cambridge	.42	6	1	1	....	....	....	1	....	1	2	....
Canton	.27	19	8	2	....	....	....	5	....	2	2	....
Chillicothe	.5	8	.....	.....	....	....	....	1	....	1	6	....
Cincinnati	.52	262	33	38	....	1	1	25	2	108	14	40
Circleville	.15	1	.....	.....	....	....	....	.....	....	.....	1	....
Cleveland	.49	489	146	27	4	27	1	21	21	134	10	98
Columbus	.24	61	5	6	....	....	....	11	....	31	5	3
Conneaut	.21	2	1	.....	....	....	....	1	....	.....	.....	....
Coshocton	.08	1	.....	.....	....	....	....	.....	....	1	.....	....
Dayton	.53	75	15	4	....	1	....	13	....	23	4	15
Defiance	.41	3	.....	1	1	....	....	.....	....	.....	1	....
Delaware	1.08	11	.....	.....	....	....	....	.....	....	1	1	9
Delphos	.18	1	.....	.....	....	....	....	.....	....	1	.....	....
Dover	.52	4	.....	2	....	....	....	.....	....	.....	2	....
East Cleveland	1.45	22	1	.....	....	....	....	.....	2	1	.....	18
East Liverpool	.17	4	.....	.....	....	....	....	2	....	2	.....	....
Elyria	1.18	24	1	12	....	....	....	1	3	2	1	4
Findlay	.27	4	.....	.....	....	....	....	.....	....	2	1	1
Fostoria	.18	2	.....	.....	....	....	....	1	....	1	.....	....
Fremont	.5	5	.....	.....	....	....	....	.....	....	2	3	....
Galion	.14	1	1	.....	....	....	....	.....	....	.....	.....	....
Hamilton	.4	18	4	.....	....	....	....	6	3	2	2	1
Ironton	.49	7	.....	.....	....	....	....	.....	....	1	6	....
Jackson	.32	2	1	.....	....	....	....	1	....	.....	.....	....
Kenton	.13	1	.....	.....	....	....	....	.....	....	1	.....	....
Lakewood	.36	6	1	1	....	....	....	1	....	3	.....	....
Lancaster	.3	5	.....	.....	....	....	....	.....	....	3	2	....
Lima	.84	28	5	2	....	....	....	2	....	9	9	1
Lorain	.34	14	4	2	....	1	....	2	....	3	1	1
Mansfield	.55	13	2	1	....	....	1	.....	....	1	6	2
Marietta	.92	12	1	.....	....	....	....	.....	....	.....	11	....
Marion	.29	7	1	.....	....	....	....	.....	....	4	2	....
Martins Ferry	.19	2	1	.....	....	....	....	1	....	.....	.....	....
Massillon	.48	12	5	5	....	....	....	.....	....	2	.....	....
Middletown	.78	13	1	.....	....	....	....	1	2	4	3	2
Nelsonville	.6	4	1	.....	....	....	....	.....	....	.....	3	....
Newark	.5	16	.....	.....	....	....	....	1	....	9	6	....
Niles	1.89	16	.....	1	....	1	....	.....	....	5	9	....

TABLE II — Concluded.

City	Total Case Rate Per 1,000 Population	Total Reported Cases	Diphtheria	Measles	Meningitis, Cerebrospinal	Pneumonia, Acute lobar	Poliomyelitis	Scarlet Fever	Smallpox	Tuberculosis, All Forms	Typhoid Fever	Whooping Cough
Norwalk	.7	6		4							2	
Norwood	.28	7	1	2				1		2		1
Painesville	.17	1								1		
Piqua	.41	6							1	3	2	
Portsmouth	.56	16	1					6		3	6	
St. Bernard	.15	1								1		
St. Marys	.65	4									4	
Salem	4.02	41		1						1	2	37
Sandusky	.39	8	1							6	1	
Sidney	.53	4								1	3	
Springfield	**.65**	**36**	**5**	**2**				**2**		**8**	**2**	**17**
Steubenville	1.16	35	8			2		3		6	16	
Tiffin	**.31**	**4**		**1**					**1**	**2**		
Toledo	1.61	322	18	88			2	32	2	24	15	141
Urbana	.35	3	2							1		
Van Wert	.5	4	1					1			2	
Wapakoneta	.75	5		1						1	3	
Warren	1.26	17		1			1	1		3	11	
Washington C.H.	.23	2							1	1		
Wellston	.29	2									2	
Xenia	.12	1								1		
Youngstown	.59	65	5	3	1	1	1	7	13	9	4	21
Zanesville	.22	7	1					1		3	2	

NOTE — Ashland, Bowling Green, Gallipolis, Greenville, Mt. Vernon, Ravenna, Troy, Wellsville and Wooster reported no cases of the diseases listed. New Philadelphia failed to submit summary report in time for publication.

DIVISION OF HYGIENE

Pursuant to orders of the Public Health Council on July 20, the new Division of Hygiene, composed of a Bureau of Tuberculosis, with the Director of Hygiene acting as Chief; a Bureau of Child Hygiene, Dr. Frances M. Hollingshead, Chief; a Bureau of Venereal Disease, Dr. Joseph M. Shapiro, Chief; a Bureau of Public Health Nursing, Hulda A. Cron, R. N., Chief, and a Bureau of Hospitals, Henry J. Southmayd, Chief, was established. The August reports of the bureaus are digested in the following paragraphs:

Bureau of Tuberculosis

Notifications of tuberculosis hospital admissions and discharges received in August are summarized in the following table:

Institution	*Admissions*	*Discharges*
Ohio State Sanatorium	48	40
Butler County Sanatorium	..	1
Franklin County Sanatorium	29	19
Lucas County Hospital	25	22
Dayton District Hospital	13	15
Lima District Hospital	9	4

Springfield District Hospital	8	8
Springfield Lake Sanatorium	12	16
Mt. Logan Sanatorium	6	7
Rocky Glen Sanatorium	10	4
St. Anthony's Hospital	3	4
Total	163	140

The following figures summarize work in behalf of discharged tuberculous soldiers, including both that done in August and the totals for the entire period since the inauguration of this activity.

	August, 1919	*Total*
Notifications received	15	970
Cases referred to public health nurses	10	653
Reports received from public health nurses	1	388
Cases written directly	4	308
Replies received	0	72
Cases visited by Division nurses	4	294
Cases admitted to sanatoria	3	55

Bureau of Child Hygiene

The chief of the Bureau of Child Hygiene returned to the Department August 1, after fourteen month's absence, during which time she was engaged in Red Cross work overseas. Most of the month was spent in studying the status of the child hygiene work, and especially the relations of the Department to the women's committees organized under the Division of Child Hygiene prior to the chief's departure. The situation is as follows: The Women's Committee of the Council of National Defense, as such, has passed out of existence and its place has been taken by the State Committee on Child Welfare, with Miss Lucia Johnson as executive secretary. Eighteen active county committees exist under the State committee. The majority of these counties, however, lost interest with the close of hostilities and will have to be restimulated for children's work. In the different counties from five to twenty-five subcommittees are active. A circular lettter from the Department to the old chairmen inquiring as to present activities, elicited from many the reply that no programs were in effect, while a number reported themselves occupied with the Back-to-School Drive. As a result of this circular letter many counties have asked for suggestions on children's work and have said that they would ask for direction as soon as they were able to define their programs.

The possibility of co-ordinating the child welfare activities of the Department with the work of the Junior Red Cross, which through its school activities is playing a large part in the public health field in the State, is under consideration. The Red Cross program at present concerns itself only with the everyday health work in the schools and takes no account of the work of nurses, dentists and physicians or of the actual health supervision of the children.

At a meeting of the women's executive committee of the Council of National Defense in Columbus, it was decided that the State Child Welfare Committee should continue through the current year. At the close of the year, it was believed, the committee could well go out of existence, as the connection between the State child welfare organizations and the health organizations would be sufficiently strengthened by that time to make this advisable.

Bureau of Venereal Diseases

Veneral disease clinics of the State treated 2,993 cases of dis-

ease in 2,903 patients in August. New admissions totaled 1,012, of whom 720 were males and 292 were females. Classified both by sex and by disease, the new admissions were: Syphilis, male 271, female 144; gonorrhea, male 394, female 121; chancroid, male 36, female 6. The total number of treatments given was 9,267. Arsphenamine was administered in 1,420 instances. The average daily clinic attendance was 20. Wassermann specimens taken numbered 1,376.

In the movement to eliminate advertising specialists and the sale of venereal disease nostrums, 100 letters were sent to druggists and 185 to newspapers.

Educational work included: Distribution of 55,934 pamphlets and circulars through the Bureau of Publicity, issuance of newspaper publicity matter through the same Bureau, giving of eight lectures to an average attendance of 25, showing of card exhibits on nine days with an average attendance of 200.

Bureau of Public Health Nursing

Changes in the local public health nursing service included:

GRANVILLE. — Miss Alice Jane Wilkinson appointed public health nurse by the American Red Cross.

SPRINGFIELD. — Miss Anna Stuckey of Wilmore, Kentucky, appointed on visiting nurse's staff, to have charge of infant welfare and prenatal clinic.

Nurses on the office staff of the Bureau spent much time in the field, visiting local nurses and health officers and making investigations of tuberculosis cases and cases of inflammation of the eyes of the newborn.

Cases of inflammation of the eyes of the newborn reported in August numbered 114, classified: By color, white 85, colored 13, unknown 16; by course of report, reported by physicians 36, by midwives 16, by nurses 23, by institutions 39. Instructions were given to health officers by telephone in three cases, fourteen cases were investigated by the Department and two cases of specific gonorrheal ophthalmia were reported. Prophylactic outfits distributed by the Division of Laboratories numbered 5,388.

Bureau of Hospitals

This Bureau was organized and began operations in July, to carry out the terms of House Joint Resolution 13 and Senate Bill 15, passed by the General Assembly at the present session. Compilation of hospital and dispensary registration forms and of mailing lists of hospitals and dispensaries, in the course of which several conferences were held with hospital association officials and other persons, occupied most of August. It was decided that the Bureau should have an exhibit at the annual meeting of the American Hospital Association in Cincinnati in September.

DIVISION OF LABORATORIES

The division made 3,350 examinations in August. Of these 3,149 were bacteriological and 201 were chemical. The bacteriological examinations are classified as follows:

Diphtheria, pos. 37, neg. 170, sus. 13, no growth 2	222
Tuberculosis, pos. 132, neg. 288, sus. 2	422
Typhoid, pos. 61, neg. 133, sus. 29	223
Wassermann, pos. 473, neg. 1,308, unsat. 177	1,958

Gonorrhea, pos. 5, neg. 52, unsat. 2	59
Malaria, pos. 0, neg. 1	1
Rabies, pos. 11, neg. 15, unsat. 4	30
Water	196
Miscellaneous	38

Of the Wassermann examinations, 492 were for venereal disease clinics, 376 were for institutions and 1,090 were for private physicians.

Outfits were distributed in the following quantities: Diphtheria 763, tuberculosis 796, typhoid 443, Wassermann 3,175, gonorrhea 162, malaria 35, chemical water 11, bacteriological water 237, triple typhoid vaccine 159, media 13, ophthalmia 5,388.

The chemical samples examined included 59 of foods and 20 of drugs. Reports on the foods were: Satisfactory 26, adulterated 15 (including eggs, hamburger, milk and vinegar), insufficient information 18. The drugs were reported as follows: satisfactory 10, misbranded 3, adulterated 5 (hair tonics and toilet water), insufficient information 2.

DIVISION OF INDUSTRIAL HYGIENE

Consulting services of the Division have included the following: Cincinnati industrial managers' committee; civil service examination for district supervising health officers; cause and control of rubber poisoning; coal mine mortality statistics; heat prostrations; electrolytic baths for lead poisoning; organization of course in training for public health officers; industrial clinics and hospital registration law; poisons in the dry cleaning and dyeing industries; appraisal of industrial hygiene phase of the Framingham tuberculosis work; venereal disease control in industries; anilin poisoning in lithographic supply manufacture; tuberculosis and dust; applicants for positions and positions for applicants.

Investigative work has included: Patent respirators; industrial hygiene status in Framingham, Massachusetts, as basis for national application; literature; intelligence case reports; investigation of "rubber dermatitis" in seven rubber plants in four cities; investigation of plant methods and medical supervision in four lead plants in two cities; investigation of occupational diseases in two lithographic supply plants and one dye plant; investigation of dust hazard in a glass rock plant.

Publicity features have included: Spreading of information to secure qualified health officers under Hughes Act; monthly abstracts for *American Journal of Public Health;* distribution of educational pamphlets.

Occupational diseases reported to the Division were: Lead poisoning, 4; brass poisoning, 1; anilin poisoning, 1; "rubber" dermatitis, 8; para nitrobenzol poisoning, 1; tuberculosis among industrial workers, 264. These represent reports from a very small part of the State.

Dr. E. B. Starr assumed office August 1, as Director of Division of Industrial Hygiene.

BUREAU OF PUBLICITY

Twenty-seven publicity articles were issued in August. Nine which were issued through the Weekly News Letter were shown by incomplete clipping returns to have attained a total circulation of 366,275

printed copies, and to have been published in 49 papers in 45 cities and villages in 36 counties.

One new publication was issued in August: Health Education Bulletin 131, "The Ravage of the Innocents." Distribution of publications totaled 64,096 copies .

Seven books were added to the Department Library.

DIVISION OF PLUMBING

Members of the Division staff made 64 inspections and collected fees amounting to $270.50 in August. Fifteen conferences were attended, two investigations were made, four orders were issued, two sets of plans were approved and twelve certificates of approval were issued.

PUBLIC HEALTH NOTES FROM OVER THE STATE

Reorganization Is Rapid

Seventy-three of the State's eighty-eight counties took the first step toward reorganization of local health machinery under the Hughes Act during the first month after the law took effect. The district advisory council had met in each of these counties and chosen the district board of health by September 10, one month after the Hughes Act became effective.

Fighting Trachoma

September was to see the opening of the joint State and Federal campaign to rid Ohio of trachoma. Scioto County is the scene of the first stage of the fight. Plans called for a free clinic, to be directed by Dr. John McMullen of the United States Public Health Service, recognized as the country's leading trachoma expert. Educational work was to play an important part. After an intensive campaign in Portsmouth and Scioto County is completed, similar work will be taken up in additional counties. Trachoma is believed to be prevalent in many southern counties.

Health Exhibit at Fairs

The State Department of Health exhibit at county fairs has been busy all summer. Child hygiene and venereal disease control are the phases of public health work emphasized in the exhibit.

Canton Names Health Officer

Dr. J. A. Kappelman of Chicago has been appointed whole-time health officer of Canton and assumed his duties September 1.

League Widens Scope

The Hamilton Anti-Tuberculosis League will be known henceforth as the Hamilton Public Health League.

Cambridge League Disbands

The Cambridge Public Health League has decided to discontinue the work of the league. The league was organized about eight years ago.

1918 Mortality From Certain Communicable Diseases in Ohio

As Reported to the United States Public Health Service by the State Bureau of Vital Statistics and the State Department of Health.

Diseases.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total Deaths.
Anthrax	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Influenza	114	94	98	196	67	13	16	14	30	5,778	4,691	3,877	14,988
Diphtheria	61	55	50	36	34	22	19	23	42	56	49	50	497
Malaria	.....	.....	3	2	1	4	.....	3	3	2	2	.....	20
Measles	11	23	35	68	44	37	15	10	3	9	7	8	270
Meningitis, epidemic cerebrospinal	13	21	32	21	11	16	10	12	11	5	5	4	161
Poliomyelitis	1	2	5	2	5	3	3	12	14	8	3	2	55
Rabies (in man)	.....	.....	.....	.....	1	1	.....	3	5	.....	.....	.....	10
Scarlet Fever	13	15	28	16	20	7	8	4	7	25	10	17	170
Pneumonia	1,053	864	1,002	1,322	514	208	194	162	284	3,441	2,175	1,823	13,042
Septic sore throat	15	5	12	8	9	8	14	5	10	5	5	5	111
Smallpox	5	4	2	1	2	3	4	.....	.....	.....	1	.....	22
Tuberculosis (Pulmonary)	576	544	695	681	598	497	451	419	391	517	530	546	6,445
Tuberculosis (all forms)	665	632	837	809	728	607	549	511	477	610	598	626	7,649
Typhoid Fever	47	38	42	52	41	34	38	76	113	181	68	41	771

Teach T. B. Treatment

A short course in the study of advanced methods of treatment of tuberculosis was given July 24-27 at the Ohio State Sanatorium. Dr. Douglass reported a good attendance and plans to repeat the course during the coming year.

Tuberculosis Conference Meets

A meeting of the Ohio Conference of Tuberculosis Hospital Superintendents was held in Columbus, July 26. A committee to investigate and classify all tuberculosis hospitals was appointed to consist of Dr. A. C. Bachmeyer, Cincinnati; Dr. R. R. Richison, Springfield; and Dr. J. R. McDowell, Columbus.

NEW HEALTH PAMPHLETS

A new edition of the State Department of Health pamphlet, "Are You in Business for Your Health?" (Health Education Bulletin 113) is on the press. This pamphlet outlines rules of personal hygiene and is intended especially for distribution among industrial workers, although other persons also will find in it much valuable material.

The report on the "Health of Ohio Coal Miners," which was published serially in the OHIO PUBLIC HEALTH JOURNAL, has been issued in pamphlet form as Reprint 1903. It presents the results of a survey of health conditions in the mining districts of the State, made by the Division of Industrial Hygiene of the State Department of Health in the early months of 1919.